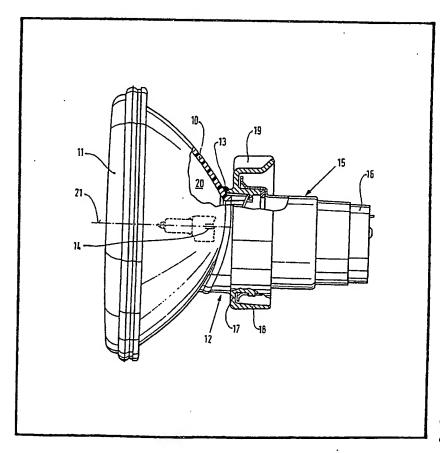
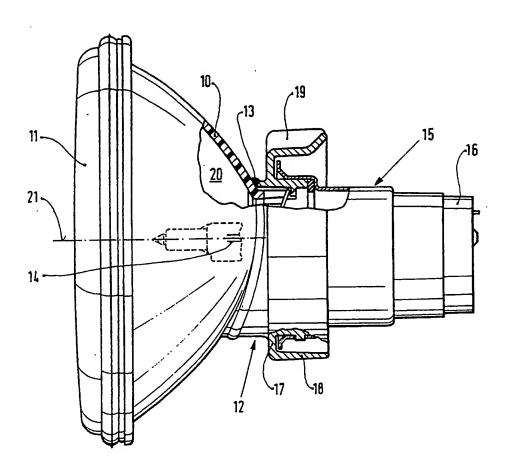
UK Patent Application (19) GB (11) 2 095 811 A

- (21) Application No 8205490
- (22) Date of filing 24 Feb 1982
- (30) Priority data
- (31) 3112114
- (32) 27 Mar 1981
- (33) Fed. Rep. of Germany (DE)
- (43) Application published 6 Oct 1982
- (51) INT CL3
 - B60Q 1/04
- (52) Domestic classification F4R 282 287 364 41Y PM
- (56) Documents cited
 - GB 1277219
 - GB 1208110
 - GB 1184540
 - GB 1180026
 - GB 1105617
- (58) Field of search
- F4R
- (71) Applicant
- Robert Bosch GmbH, 7000 Stuttgart 1,
- Germany
- (72) Inventors Siegfried Seliger,
- Karl Bengel
- (74) Agents
 - A. A. Thornton and Co, Northumberland House, 303/306 High Holborn, London,
 - WC1V7LE

- (54) A headlamp for motor vehicles
- (57) The lamp holder (12) of a semisealed headlamp for motor vehicles is a light metal die casting and has a ring (17, 18) L-shaped in cross-section and provided with a plurality of radial fins
- (19). In that way, the outer surface of the lamp holder (12) is considerably increased and acts as a heat conductive element which dissipates a portion of the heat prevailing in the interior (20) of the headlamp to the outer atmosphere.



095



SPECIFICATION

A headlamp, particularly a semi-sealed headlamp, for motor vehicles

State of the art

The invention concerns a headlamp, particularly a semi-sealed headlamp, for motor vehicles according to the preamble to the main claim. Semi-sealed headlamps of that kind are sealed-off with respect to the outer atmosphere in 10 order to prevent damage to and soiling of the reflecting surface of the reflector and the inner surface of the lens. However, this sealing-off has the disadvantage of insufficient heat dissipation so that inadmissably high temperatures in the 15 interior of the semi-sealed headlamp can no longer be excluded with certainty.

In order to increase the heat dissipation it has already been proposed in United States Specification 1 634 499 to arrange a plurality 20 of concentric and radial cooling fins on the outside of a housing accommodating the reflector. Moreover, it is known from German OS 27 55 200 to make the metal lamp holder of large area in the regions suitable 25 for heat dissipation, when using reflectors of plastics material, in order to conduct the heat from the interior to the metal housing.

Both solutions are ustable for so-called auxiliary headlamps but are little suited to semi-30 sealed headlamps.

Problem

Consequently, the invention is based on the object of showing ways of further developing the semi-sealed headlamp according to the preamble 35 with little technical outlay in such a manner that a sufficient heat dissipation to the outer atmosphere takes place especially with reflectors of plastics material.

Solution

40

Proceeding from a semi-sealed headlamp according to the preamble, the object of the invention is solved by the characterising features of claim 1.

Advantageous further developments of the 45 invention are described in the sub-claims. With the form of semi-sealed headlamp according to claim 2 and with the further development according to claim 3, a large area dissipation surface is achieved. With the further development 50 according to claim 5, a way is shown of releasably fixing the metal lamp holder to the reflector made of plastics material with technically simple

By means of the invention, the temperature in 55 the interior of the headlamp is lowered to about 40 degrees celsius and an evaporation of gases from components is prevented and consequently their deposit on the reflecting surface of the reflector; such a deposit necessarily reduces the 60 optical value of the headlamp until it becomes unusable.

Drawing

An embodiment of the invention is illustrated in the drawing and is described in detail in the 65 following specification. The single figure shows a semi-sealed headlamp in axial section on a reduced scale.

Description of the embodiment

A semi-sealed headlamp for motor vehicles, 70 with an optical axis 21, has a reflector 10 of plastics material, a lens 11 being stuck in the outlet opening from the reflector and a lamp holder 12 in the form of a light metal die casting non-releasably fixed by an adhesive ring 13

75 permanently fixed to the outside of the reflector in the apex region and in which can be inserted an incandescent bulb 14. A cap 15 with a plug-in tongue section 16 can be fixed to the lamp holder 12 by means of a bayonet joint.

The lamp holer 12 is L-shaped in cross-section 80 and its radial section 17 preferably projects integrally from the outer wall of the lamp holder 12 and continues in a coaxial section 18. A plurality of fins 19 (only one of which is visible) 85 project radially outwards from the section 18. The size of the ring 17, 18 and that of the fins 19 as well as their number is dependent upon the space available between the headlamp and a supporting ring (not shown) fixed to the body of the vehicle 90 and receiving the headlamp.

The lamp holder 12 together with the integrally formed ring 17, 18 and the fins 19 form a heat conductive element which conducts a portion of the heat prevailing in the interior of the headlamp

95 to the outer atmosphere.

Claims

- 1. A headlamp, particularly a semi-sealed headlamp, for motor vehicles comprising a reflector and a lens fixed in the outlet opening 100 from the reflector, an annular lamp holder into which an incandescent bulb can be inserted and which is fixed at the rear end of the reflector, a cap for covering the lamp holder and an element for conducting heat for the interior of the headlamp 105 to the surrounding atmosphere, characterised in that, the element is preferably formed integrally with the outer wall of the lamp holder and that the element consists of heat conductive material and has radiating surfaces for the dissipation of 110 heat
 - 2. A headlamp according to claim 1, characterised in that, the radiating surface has a section radial with respect to the optical axis and a coaxial section connected thereto.
- A headlamp according to claim 2, 115 characterised in that, a plurality of fins project radially outwards from the axial section of the
- 4. A lamp holder according to one of the 120 preceding claims, characterised in that, the lamp holder is a die casting of light metal.
 - 5. A headlamp according to one of the preceding claims, characterised in that, the lamp holder is non-releasably connected to the

reflector by means of an adhesive ring.
6. A headlamp for motor vehicles, substantially

as herein described with reference to the accompanying drawing.

Printed for Her Majesty's Stationery Office by the Courier Press, Learnington Spa. 1882. Published by the Patent Office. 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.